

## **REMARKS**

**1. Reconsideration in view of the amendments, the submissions, and comments herein is respectfully requested.**

**2. Claims 1 – 28 stand rejected over Zhu et al. (hereinafter Zhu), Morlock et al. (hereinafter Morlock), and Wakeman et al. (hereinafter Wakeman) as cited in the Official Action.**

**Claims 1, 3-4, 11, 12-20, 22, and 25-28 were rejected as anticipated under 35 USC 102(b) by Zhu.**

**Claims 1-14, 16-20, and 21-28 were rejected as anticipated under 35 USC 102(b) by Morlock and Wakeman.**

**Claims 12, and 14-15 were rejected on the basis of double patenting over claims 12 – 18 in US 6,896,894.** Claims 12, and 14-15 are among the claims deleted herein without prejudice.

Claim 1 has been amended by the addition of the limitation of a surfactant coated on the protein stabilizer mixture, a further limitation that the surfactant coated protein stabilizer mixture is encapsulated in a biodegradable polymer, and that the protein mixed with polysaccharide stabilizer be microparticles . Antecedent is found in claim 2, lines 1-2; in claim 5, line 4; and page 7 lines 14-15.

Amended Claim 1 appears patentable over the cited art in that it recites a

protein stabilizer mixture coated with a surfactant and encapsulated in a biodegradable polymer. Neither Zhu nor Morlock (nor the addition of Wakeman to Morlock) teach or disclose the surfactant coating on the stabilized protein and subsequent biopolymer coating. In contrast Morlock provides for a biopolymer coating on the protein that is subsequently coated with a polyvinyl alcohol. Additional support is provided by the enclosed declaration of Dr. Richard Brody. Amended claim 1 and its dependent claims 3 and 4 now appear patentable over the cited art.

Claim 2 has been cancelled without prejudice since the subject matter has been added to claim 1.

Claim 5 is amended to add the further limitations that the surfactant coated stabilizer protein mixture is a microparticle that is coated with a surfactant and that is encapsulated in a biodegradable polymer. Antecedent is at page 7, line 14-15 and lines 30-31. The same discussion for patentability applies here as discussed above. Neither Zhu nor Morlock teach the surfactant coated protein stabilizer mixture and subsequent biopolymer coating. Additional support is provided by the enclosed declaration. Amended Claim 5 and its dependent claims 7-9 now appear patentable.

Claim 6 has been cancelled without prejudice and its limitation incorporated in Claim 5.

Claim 7 has been amended to provide proper dependency after deletion of Claim 6.

Claim 10 is cancelled without prejudice.

Claim 11 is amended by adding the additional limitations of providing a stabilized particle, a surfactant coated on the stabilized particle, a biodegradable encapsulant

and a microparticle. Antecedent is found page 6, lines 11-12 and lines 28- 31; Claim 6, lines 1-2; and Claim 10, lines 1-2. Similar to the discussion above, Claim 11 and its dependent claims (see new claims) appear patentable since neither Zhu nor Morlock (with Wakeman) teach or suggest surfactant coated microspheres of a protein and a stabilizer that is then encapsulated.

Claims 12 through 20 are deleted without prejudice.

Claim 21 has been amended to include the additional limitation of encapsulating the surfactant coated microparticles in a biodegradable polymer. Antecedent is found at page 6, lines 9-12. Similar to the reasons presented above this claim and its dependent claims 22 through 28 appear patentable as the independent claim limitation of a protein stabilizer mixture coated with a surfactant and subsequently coated with a biodegradable polymer is not found in Zhu or Morlock. Additional support is found in the attached declaration.

Claim 22 is cancelled without prejudice.

Claims 23 through 28 have been amended to provide proper reference to Claim 21 after deletion of Claim 22 on which they formerly depended. These claims are likewise patentable as Claim 21 on which they depend.

### **3. Presentation of New Claims 29 through 37**

New Claims 29 through 36 are ultimately dependent on Claim 11 and are intended to follow Claim 11. The text of Claims 29 through 35 finds antecedent in cancelled method Claims 14 to 20. The method claims having been rewritten into a formulation format. Claims 29-35 appear patentable over the cited art of Zhu and

Morlock in that they are dependent on and provide further limitations on Claim 11 whose patentability was discussed above.

New Claim 36 provides the added limitation of requiring the particles of surfactant coated stabilized protein to be dispersed in the biodegradable polymer. Antecedent for the dispersed limitation is found in Figure 1, showing microparticle 113 having surfactant coated stabilized protein particles 109 dispersed in encapsulant 111. This claim depends on Claim 11 whose patentability is discussed above. This claim provides further limitation to that claim and appears patentable.

New Claim 37 is an independent claims and provides for a method for stabilizing a protein. The method steps have antecedent at page 12, lines 26-32. This method appears patentable in that it discloses the production of stabilized particles of polysaccharide gum and protein. The particles are coated with a surfactant and then encapsulated in a biodegradable polymer. This disclosure is not found in Zhu, Morlock and Wakeman as discussed above, and in the attached declaration.

It is believed that all claims are now in proper form for allowance and favorable action thereon is requested.

4. Applicant has petitioned for an extension of time of one month. The fee of \$60.00 for the one month extension is enclosed herewith. It is believed no additional extension is required since the present reply is within the one month period including the Holiday. Should an additional extension be required this is a petition and request therefor.

Applicant's attorney has made a good faith effort to address the concerns expressed by the Examiner. If the Examiner has any remaining issues with the amendment or application, and has any suggestions as to how to address them, the Examiner is invited to call the Applicant's undersigned attorney at the phone number given below, so that those issues can be worked out.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Klaus H. Wiesmann". The signature is fluid and cursive, with a long horizontal stroke at the end.

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